NPort 5200 Series
Quick Installation Guide

Fifth Edition, November 2005

1. Overview

The NPort 5200 Series of compact palm-sized device servers are used to control RS-232 (NPort 5210/5230/5210-T/5230-T) or RS-422/485 (NPort 5230/5232/5232I/5230-T/5232-T/5232I-T) serial devices over a TCP/IP-based Ethernet.

Note:
"-T" indicates an extended temperature model.

2. Package Checklist

Before installing NPort 5200, verify that the package contains the following items:

- 1 NPort 5200 2-port Serial Device Server
- Documentation & Software CD
- NPort 5200 Series Quick Installation Guide

Optional Accessories

- DK-35A DIN-Rail Mounting Kit (35 mm)
- CBL-RJ45M9-150 RJ45 (8-pin) to DB9 (M) cable, 150 cm
- CBL-RJ45F9-150 RJ45 (8-pin) to DB9 (F) cable, 150 cm
- CBL-RJ45M25-150 RJ45 (8-pin) to DB25 (M) cable, 150 cm
- CBL-RJ45F25-150 RJ45 (8-pin) to DB25 (F) cable, 150 cm
- DIN-Rail Power Supply and Adapter

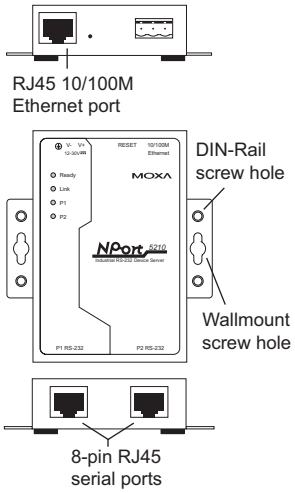
Notify your sales representative if any of the above items is missing or damaged.

3. Hardware Introduction

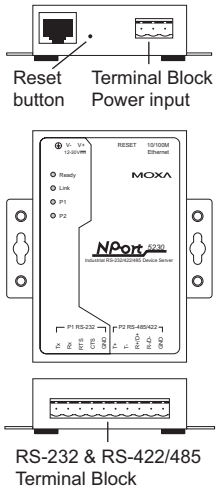
The NPort 5200 series of device servers are used to control RS-232/422/485 devices. NPort 5210/5210-T has two 8-pin RJ45 ports, both for the RS-232 interface. NPort 5230/5230-T has one 10-pin terminal block, with 5 pins used for one RS-232 port, and 5 pins used for one RS-422/485 port. NPort 5232/5232I/5232-T/5232I-T have one 10-pin terminal block, with 5 pins used for one RS-422/485 port, and 5 pins used for another RS-422/485 port.

P/N: 1802002010400

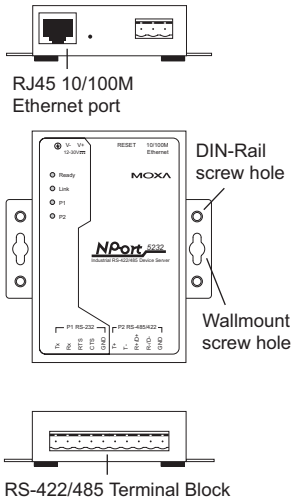
NPort 5210/5210-T



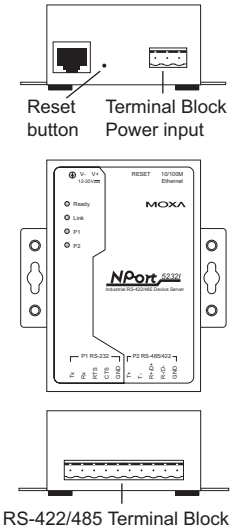
NPort 5230/5230-T



NPort 5232/5232-T



NPort 5232I/5232I-T



Reset Button—Press the *Reset button* continuously for *5 sec to load factory defaults*: Use a pointed object, such as a straightened paper clip or toothpick, to press the reset button. This will cause the Ready LED to blink on and off. The factory defaults will be loaded once the Ready LED stops blinking (after about 5 seconds). At this point, you should release the reset button.

NPort 5200 LED Indicators (top panel)

LED Name	LED Color	LED Function
Ready	red	Steady on: Power is on and NPort 5200 is booting up. Blinking: Indicates an IP conflict, or DHCP or BOOTP server did not respond properly.
	green	Steady on: Power is on and NPort 5200 is functioning normally. Blinking: The device server has been located by Administrator's Location function
	off	Power is off, or power error condition exists.
Ethernet	orange	10 Mbps Ethernet connection.
	green	100 Mbps Ethernet connection.
	off	Ethernet cable is disconnected, or has a short.
P1, P2	orange	Serial port is receiving data.
	green	Serial port is transmitting data.
	off	No data is being transmitted or received through the serial port.

4. Hardware Installation Procedure

STEP 1: After removing NPort 5200 from the box, the first thing you should do is connect the power adaptor. Connect the 12-30 VDC power line with NPort 5200's terminal block, or connect the DIN-Rail power supply with NPort 5200's terminal block.

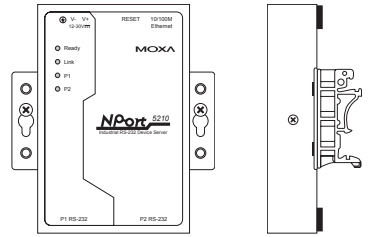
STEP 2: Connect NPort 5200 to a network. Use a standard straight-through Ethernet cable to connect to a Hub or Switch. When setting up or testing NPort 5200, you might find it convenient to connect directly to your computer's Ethernet port. In this case, use a cross-over Ethernet cable.

STEP 3: Connect NPort 5200's serial port to a serial device.

STEP 4: Placement Options

In addition to placing NPort 5200 on a desktop or other horizontal surface, you may also make use of the DIN-Rail or Wall Mount options, as illustrated here.

Wall Mount **DIN-Rail**

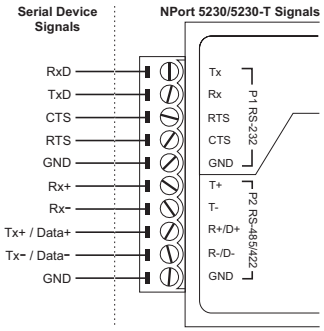


5. Software Installation Information

To install **NPort Administration Suite**, insert the **NPort Document & Software CD** into your computer's CD-ROM drive. Once the **NPort Installation CD** window opens, click on the Installation button, and then follow the instructions on the screen. To view detailed information about **NPort 5200 Administration Suite**, click on the **Documents** button, and then select "NPort 5200 Series User's Guide" to open the pdf version of this user's guide. **The PComm Lite** program is also included in the **Documentation & Software CD** free of charge. Install **PComm Lite** to use the **Serial Console** for configuring the IP address for the first time.

6. Pin Assignments and Cable Wiring—NPort 5230/ 5230-T

Terminal Block Wiring



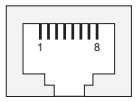
Note:

NPort 5232/5232I/5232-T/5232I-T have 2 RS-422/485 ports. The pin assignments are the same as NPort 5230/5230-T's port 2. Refer to the "NPort 5200 Series User's Manual" for more details.

7. Pin Assignments and Cable Wiring—NPort 5210/ 5210-T

RJ45 (8-pin) Connector Pinouts

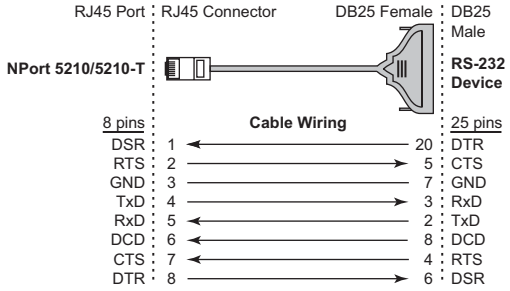
8-Pin	Signal
1	DSR
2	RTS
3	GND
4	TxD
5	RxD
6	DCD
7	CTS
8	DTR



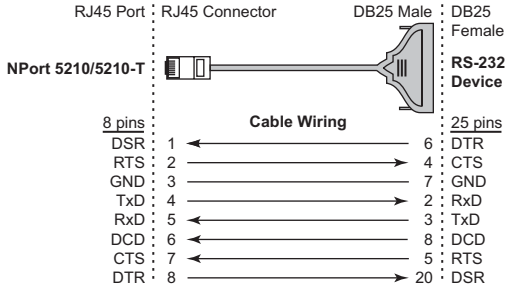
Cable Wiring (RS-232)

Four cables are available as optional accessories that can be used to connect NPort 5210/5210-T to RS-232 serial devices. For your convenience, we show precise cable wiring diagrams for each of the four cables.

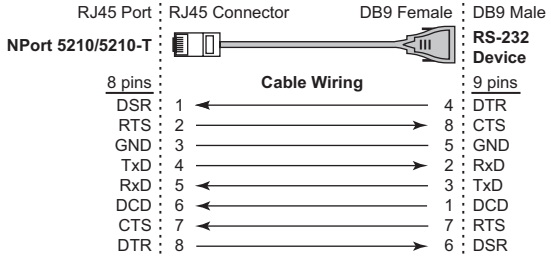
RJ45 (8-pin) to DB25 Female (Cable Name: CBL-RJ45F25-150)



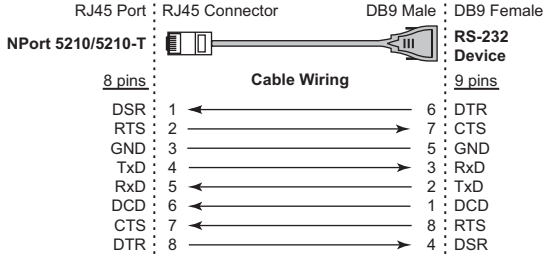
RJ45 (8-pin) to DB25 Male (Cable Name: CBL-RJ45M25-150)



RJ45 (8-pin) to DB9 Female (Cable Name: CBL-RJ45F9-150)



RJ45 (8-pin) to DB9 Male (Cable Name: CBL-RJ45M9-150)



8. Specifications

Power requirements

NPort 5210/5210-T:	12 to 48 VDC, 305 mA at 12V (max.)
NPort 5230/5230-T:	12 to 48 VDC, 305 mA at 12V (max.)
NPort 5232/5232-T:	12 to 48 VDC, 359.6 mA at 12V (max.)
NPort 5232I/5232I-T:	12 to 48 VDC, 509.4 mA at 12 V (max.)

Operating temp.

0 to 55°C (32 to 131°F)	for standard models
-40 to 75°C (-40 to 167°F)	for -T models

Operating humidity

5 to 95% RH

Dimensions (W×D×H)

NPort 5210/5230/5232/ 5210-T/5230-T/5232-T(including ears)	90 × 100.4 × 22 mm 3.54 × 3.95 × 0.87 in
NPort 5210/5230/5232/ 5210-T/5230-T/5232-T(without ears)	67 × 100.4 × 22 mm 2.64 × 3.95 × 0.87 in
NPort 5232I/5232I-T (including ears)	90 × 100.4 × 35 mm 3.54 × 3.95 ×1.37 in
NPort 5232I/5232I-T (without ears)	67 × 100.4 × 35 mm 2.64 × 3.95 × 1.37 in

Surge protection

15 KV ESD for serial port

Magnetic isolation

1.5 KV for Ethernet

Power line protection

4 KV Burst (EFT), EN61000-4-4
2 KV Surge, EN61000-4-5

Regulatory approvals

FCC Class A, CE Class A, UL, CUL, TÜV

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